58.5(g) Air Quality

Compliance with the Federal Clean Air Act

Outline

- National Ambient Air Quality Standards
- National Emission Standard for Hazardous Air Pollutants for Asbestos

CLEAN AIR ACT—NATIONAL AMBIENT AIR QUALITY STANDARDS

Clean Air Act (CAA) of 1970—Criteria Pollutants

- CAA is a comprehensive Federal law that regulates air emissions
- It's provisions cover:
  - Ambient Air Quality from stationary and mobile sources
  - Air Toxics
  - Acid rain
  - Ground-level ozone
  - Stratospheric ozone depletion

National Ambient Air Quality Standards (NAAQS)

- National ambient air quality standards set for criteria pollutants which include:
  - ground-level ozone (smog)
  - particulate matter
  - carbon monoxide
  - lead
  - nitrogen dioxide
  - sulfur dioxide

NAAQS Standards

- Federal standards represent the minimum level of protection
  - Primary standards protect public health
  - Secondary standards protect public health and the environment
- States can adopt:
  - More stringent standards
  - Cannot adopt standards less stringent than federal levels

National Ambient Air Quality Standards

Pollutant	Primary/Secondary	Averaging Time	Level
Carbon Monoxide	Primary	8 Hour 1 Hour	9 ppm 35 ppm
Lead	Primary and Secondary	Rolling 3 month average	0.15 $\mu g/m^3$
Nitrogen Dioxide	Primary Primary and Secondary	1 Hour Annual	100 ppb 53 ppb
Ozone	Primary and Secondary	8-Hour	.075 ppb
Particle Pollution $PM_{2.5}$	Primary and Secondary	Annual 24-hour	15 $\mu g/m^3$ 35 $\mu g/m^3$
Particle Pollution PM_{10}	Primary and Secondary	24-Hour	150 $\mu g/m^3$
Sulfur Dioxide	Primary Secondary	1 Hour 3 Hour	75 ppb .5 ppb

Pollution Control Measures

- Major Stationary Sources
  - Best Available Control Technologies
  - NAAQS Permits
  - State Implementation Plans (SIP) in Non-Attainment Areas
- Mobile Sources
  - Automobile emissions control requirements
  - SIPs include management requirements that result in a reduction of Non-Attainment pollutants

States' Role

- State Implementation Plans (SIP)
  - States that have designated Non-Attainment areas must submit a SIP to EPA for approval
  - Explains how the State will comply with NAAQS
- NAAQS permitting program is generally delegated to states
  - Hold hearings on permit applications by power companies, chemical companies, etc
  - Involve the public, through hearings and opportunities to comment
  - Fine companies for violating air pollution limits

Federal Role

- Develop Standards:
  - Emissions Standards
  - Technology – based, industry-specific, pollution control measures
- Approve State Implementation Plans
- Enforcement responsibilities shared with States
- Assume NAAQS program implementation for States for which a SIP is not acceptable
- Provide technical and financial assistance to states

Part 58.5(g) Air Quality Requirements

- Must comply with Clean Air Act –42 U.S.C. 7401, et. seq., as amended, particularly
  - Section 176 (c)
  - Section 176 (d)

Section 176—Limitations on Federal Assistance

- 176 (c): Prohibits federal assistance which does not conform with a State Implementation Plan
- 176 (d): Mandates each Federal Agency and its program implementers :
  - To give priority to air quality transportation consequences
  - Ensure consistency with Plan implementation that achieves and maintains National Ambient Air Quality Standards.
  - Extends this to the Housing and Urban Development Act. [42 U.S.C. 7506]

Projects Must Conform to State Implementation Plans

- **Statutory Test for Conformance** [CAA Sec. 7506(c)(1)(B)(i)-(iii)] -- The Project Will Not:
  - **Contribute** to any new violation of any standards in any area
  - **Increase** the frequency or severity of any existing violation of any standard in any area; or
  - **Delay** timely attainment of any standard or any required interim emission reductions or other milestones in any area"

Example Projects that Might Adversely Affect Clean Air

- Industrial and Commercial activities with airborne emissions – manufacturing, dry cleaning, painting operations
- Agricultural facilities – concentrated animal feeding operations
- Large traffic-generating projects
- Projects with wood-burning and coal-burning components
- Ethanol, biodiesel and fuel mixing plants

58.5(g) Compliance with Ambient Air Standards

- Types of activities that would not likely contribute to non-attainment of the NAAQS
  - Single family housing projects 5 or fewer dwelling units
  - Housing Rehabilitation
  - Play ground improvements
- Need to determine whether project could result:
  - Increase traffic
  - Increase power generation

HUD Actions Must Conform with SIPs

- Project descriptions must clearly define the scope, scale, nature and location of the proposed action
- Document whether the proposed action has the potential for air emissions or to induce air emissions (e.g. increase traffic in project area)
- Written narrative must demonstrate that:
  - project will not contribute to a new violation
  - contribute to an existing violation
  - delay attainment of NAAQS

Determine Whether the Project is Located in a NAAQS Non-Attainment Area

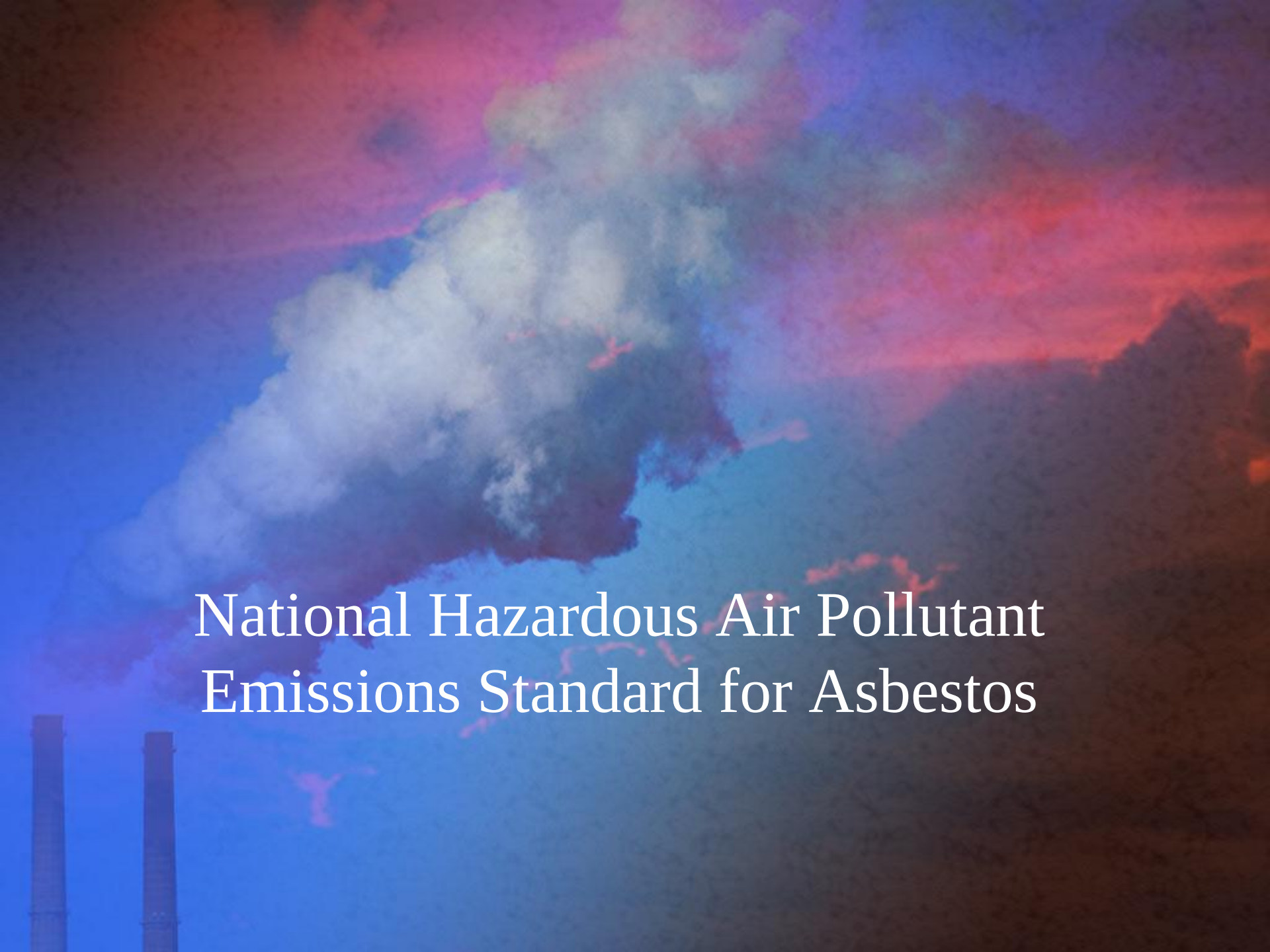
- **Currently Designated Nonattainment Areas for All Criteria Pollutants (EPA, March 2012)**

  http://www.epa.gov/oaqps001/greenbk/

If the Project is Located in Non-Attainment Area

- Obtain a letter of consistency with the State Implementation Plan from the State oversight agency; or,
- Permitting and compliance actions (e.g., air modeling) may be required in order to conform

- Mitigation is required to bring project into compliance if emissions exceed:
  - De minimus emissions levels for pollutants in Non-attainment
  - Maintenance levels necessary to avoid Non-attainment
  - State NAAQS screening levels
- If emissions cannot be mitigated, then, federal funds may not be used
- Conditions that are required for conformance must be included in Environmental Review as a Project Condition
- Must be noted in the Project Description area of the HUD Form 7015.15



National Hazardous Air Pollutant Emissions Standard for Asbestos

Asbestos Containing Materials

Source http://www.epa.gov/region6/6pd/asbestos/index.htm

- Asbestos is a naturally occurring mineral widely used in building products
  - 3,000 different types of commercial products contain some amount of asbestos
  - Paper products and brake linings to floor tiles and thermal insulation
- Intact and undisturbed (ACM) does not pose a health risk
- Asbestos fibers can be release into the air when it is
  - Damaged
  - Disturbed
  - Deteriorates over time

Asbestos Health Impacts

- Asbestos fibers are small and light
- May remain in the air for many hours if they are released from the asbestos containing material (ACM) in a building.
- If inhaled, asbestos fibers can cause serious health problems, including:
  - Impairment of lung functions
  - Increase the risk of developing lung cancer, mesothelioma, or asbestosis.
- Asbestos-related health problems have been documented in workers in the following manufacturing areas:
  - Shipbuilding
  - Mining
  - Milling
  - Fabricating
- Building demolition is a major source of asbestos containing material

40 CFR, Chapter 61, Subpart M
National Emission Standard for Asbestos (1990)

- Applies to Demolition and Rehabilitation Projects
- Requires an asbestos inspection by licensed inspector
- NESHAP Threshold: the combined presence of regulated asbestos containing material (RACM) in quantities equal to or greater than:
  - 160 square feet on other facility components
  - 260 linear feet on pipes
  - 35 cubic feet on off facility components

Asbestos NESHAP Components

- **Notice Requirements** to EPA Administrator
  - All demolition projects containing RACM
  - Rehab projects that meet or exceed RACM threshold
- **Emissions Control Standard**—No visible emissions to outside air

Emissions Control Measures

- **Licensing requirements** of asbestos removal contractors
- **Asbestos Handling**—complex but generally requires:
  - Wetting asbestos substances during removal
  - Handling measures
  - Local exhaust ventilation and collection system, glove bag system
  - Leak –tight wrapping abatement requirements for removal, transportation, waste disposal , disposal operations

Program Implementation

- Carried out by States
- States can promulgate their own rules which can be more stringent than the Federal Asbestos NESHAP

State Asbestos Program Contacts

- **Arkansas** Commission Environmental Quality, Air Division, Asbestos and Lead-Based Paint Section 5301 Northshore Drive, North Little Rock, AR 72118-5317, **Phone: (501) 682-0718, E-mail: info@adeq.state.ar.us**
- **Louisiana** Department of Environmental Quality Mia Townsel , Asbestos and Lead Supervisor Mia.Townsel@la.gov 225-219-1665
- **New Mexico** Environmental Department Air Quality Bureau 1301 Siler Road, Building B Santa Fe, New Mexico, 87507. Asbestos Hotline: 1-800-224-7009
- **Oklahoma** Department of Labor, Asbestos Division at 405521-6464.
- **Texas** Department of State Health Services; Roxanna B. Gurerro, Asbestos Program Coordinator Phone: (512) 834-6787, Extension 2198. Terry Collins : 512-834-6770. E-mail at terryw.collins@dshs.state.tx.us

Documentation for the ERR

- Written statements documenting that asbestos is not of concern
- If of concern include asbestos surveys
- Conditions and Mitigation Plans
- Conditions and Mitigation measures must be noted in the Project Description area of the HUD Form 7015.15

Penalties for NESHAP Violations

- $25,000 per day, per violation, with no absolute maximum.
- NESHAP violators may also be liable under CERCLA, and if so, the maximum penalty may be much higher.